

Having thus described the invention, what is claimed is:

1. A method of forming a preform having a predetermined shape comprising the steps of:

 feeding sugar and glass fibers into a preform mold;

 heating said preform mold to a temperature sufficient to melt said sugar, said melted sugar adhering to said glass fibers to form sugar-coated glass fibers; and

 cooling said preform mold to bind said sugar-coated glass fibers together and form said preform.
2. The method of claim 1, wherein said glass fibers are continuous glass strands.
3. The method of claim 2, further comprising the step of:

 texturizing said continuous glass strands by separating said continuous glass strands into individual glass fibers prior to feeding said continuous glass strands into said preform mold.
4. The method of claim 2, wherein said continuous glass strands and said sugar are simultaneously fed into said preform mold.
5. The method of claim 1, wherein said predetermined shape of said preform has a shape corresponding to a shape of an automobile muffler.

6. The method of claim 1, further comprising the step of:
removing said preform from said preform mold.
7. The method of claim 1, wherein said sugar is a sugar having a melting point of
130 °F or greater.
8. The method of claim 1, wherein said preform mold is perforated.
9. The method of claim 8, wherein said heating step comprises passing heated air
through said preform mold for a period of time sufficient to at least partially caramelize said
sugar.
10. The method of claim 8, wherein said cooling step comprises passing cool air
through said preform mold.
11. A method of forming a preform comprising the steps of:
placing a binder on internal walls of a preform mold;
adding continuous glass strands to said preform mold; and
curing said binder to bond glass fibers positioned adjacent to said internal
walls together and form said preform, said bonded glass fibers forming an encapsulating shell
of bound glass fibers surrounding unbound glass fibers within said preform.

12. The method of claim 11, wherein said binder is a sugar having a melting point of 130 °F or greater.

13. The method of claim 12, wherein said curing step comprises the steps of:
heating said preform mold to a temperature sufficient to at least partially melt said sugar, said melted sugar adhering to said glass fibers to form sugar-coated glass fibers;
and
cooling said preform mold to bind said sugar-coated glass fibers together and form said preform.

14. The method of claim 13, further comprising the step of:
heating said preform mold prior to placing said sugar on said internal walls.

15. The method of claim 11, further comprising the step of:
texturizing said continuous glass strands by separating said continuous glass strands into individual glass fibers prior to feeding said continuous glass strands into said preform mold.

16. The method of claim 11, further comprising the step of:
removing said preform from said preform mold.

17. A preform comprising continuous glass strands formed into a predetermined shape, said continuous glass strands being bound together by a sugar that has been melted and cooled to form a binder.
18. The preform of claim 17, wherein said sugar has a melting point of 130 °F or greater.
19. The preform of claim 18, wherein said sugar is selected from the group consisting of glucose, sucrose, lactose and galactose.
20. The preform of claim 19, wherein said predetermined shape of said preform corresponds to a shape of an automobile muffler.